CRF Errors Edited by the STIC Systems Branch

Serial Number: _10/553,661_   CRF Edit Date: _11/1/05_
Edited by: _____

____ Realigned nucleic acid/amino acid numbers/text in cases where the sequence text "wrapped" to the next line

____ Corrected the SEQ ID NO. Sequence numbers edited were:

_____

____ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

_____

____ Deleted: ____ invalid beginning/end-of-file text ; ____ page numbers

____ Inserted mandatory headings/numeric identifiers, specifically:

_____

____ Moved responses to same line as heading/numeric identifier, specifically:

_____

____ Other:

_____
_____
_____

Revised 09/09/2003

RAW SEQUENCE LISTING   DATE: 11/01/2005
PATENT APPLICATION: US/10/553,661   TIME: 11:57:18

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF4\11012005\J553661.raw

```
      3 <110> APPLICANT: Genesis Group Inc., Kenneth Kao, Catherine Popadiuk
      5 <120> TITLE OF INVENTION: Pygopus in Diagnosis and Treatment of Cancer
      7 <130> FILE REFERENCE: 50680-4
C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/553,661
C--> 9 <141> CURRENT FILING DATE: 2005-10-17
      9 <150> PRIOR APPLICATION NUMBER: US 60/463 309
     10 <151> PRIOR FILING DATE: 2003-04-17
     12 <150> PRIOR APPLICATION NUMBER: US 60/496 012
     13 <151> PRIOR FILING DATE: 2003-08-19
     15 <160> NUMBER OF SEQ ID NOS: 28
     17 <170> SOFTWARE: PatentIn version 3.3
     19 <210> SEQ ID NO: 1
     20 <211> LENGTH: 3190
     21 <212> TYPE: DNA
     22 <213> ORGANISM: homosapiens
     24 <220> FEATURE:
     25 <223> OTHER INFORMATION: hPygo-2
     27 <220> FEATURE:
     28 <221> NAME/KEY: CDS
     29 <222> LOCATION: (173)..(1393)
     31 <400> SEQUENCE: 1
     32 gtctggagag agcgcgcagt ttgcgcggcg gctcggcgct tccctgtcgt cgcactttgt          60
     34 ggttgctgca gctcgggggc ctgggctgcc cctgacaccc cttctgggcg atggtgcagc         120
     36 ccaagggcgc ctccatcccc cgccgctgcc gctaacccgg gtcccccact cc atg gcc         178
     37                                                          Met Ala
     38                                                           1
     40 gcc tcg gcg ccg ccc cca ccg gac aag ctg gag gga ggt ggc ggc ccc         226
     41 Ala Ser Ala Pro Pro Pro Pro Asp Lys Leu Glu Gly Gly Gly Gly Pro
     42         5                   10                  15
     44 gca ccg ccc cct gcg ccg ccc agc acc ggg agg aag cag ggc aag gcc         274
     45 Ala Pro Pro Pro Ala Pro Pro Ser Thr Gly Arg Lys Gln Gly Lys Ala
     46     20                  25                  30
     48 ggt ctg caa atg aag agt cca gaa aag aag cga agg aag tca aat act         322
     49 Gly Leu Gln Met Lys Ser Pro Glu Lys Lys Arg Arg Lys Ser Asn Thr
     50 35                  40                  45                  50
     52 cag ggc cct gca tac tca cat ctg acg gag ttt gca cca ccc cca act         370
     53 Gln Gly Pro Ala Tyr Ser His Leu Thr Glu Phe Ala Pro Pro Pro Thr
     54                 55                  60                  65
     57 ccc atg gtg gat cac ctg gtt gca tcc aac cct ttt gaa gat gac ttc         418
     58 Pro Met Val Asp His Leu Val Ala Ser Asn Pro Phe Glu Asp Asp Phe
     59                 70                  75                  80
     61 gga gcc ccc aaa gtg ggg gtt gca gcc cct cca ttc ctt ggc agt cct         466
     62 Gly Ala Pro Lys Val Gly Val Ala Ala Pro Pro Phe Leu Gly Ser Pro
```

```
63          85                    90                   95
65 gtg ccc ttc gga ggc ttc cgt gtg cag ggg ggc atg gcg ggc cag gta        514
66 Val Pro Phe Gly Gly Phe Arg Val Gln Gly Gly Met Ala Gly Gln Val
67      100                   105                  110
69 ccc cca ggc tac agc act gga ggt gga ggg ggc ccc cag cca ctc cgt        562
70 Pro Pro Gly Tyr Ser Thr Gly Gly Gly Gly Gly Pro Gln Pro Leu Arg
71 115                   120                  125                 130
73 cga cag cca ccc ccc ttc cct ccc aat cct atg ggc cct gct ttc aac        610
74 Arg Gln Pro Pro Pro Phe Pro Pro Asn Pro Met Gly Pro Ala Phe Asn
75               135                   140                  145
77 atg ccc ccc cag ggt cct ggc tac cca ccc cca ggc aac atg aac ttt        658
78 Met Pro Pro Gln Gly Pro Gly Tyr Pro Pro Pro Gly Asn Met Asn Phe
79               150                   155                  160
81 ccc agc caa ccc ttc aac cag cct ctg ggt caa aac ttt agt cct ccc        706
82 Pro Ser Gln Pro Phe Asn Gln Pro Leu Gly Gln Asn Phe Ser Pro Pro
83          165                   170                  175
85 agt ggg cag atg atg ccg ggc cca gtg ggg gga ttt ggt ccc atg atc        754
86 Ser Gly Gln Met Met Pro Gly Pro Val Gly Gly Phe Gly Pro Met Ile
87      180                   185                  190
89 tca ccc acc atg gga cag cct ccc aga gca gag ctg ggc cca cct tct        802
90 Ser Pro Thr Met Gly Gln Pro Pro Arg Ala Glu Leu Gly Pro Pro Ser
91 195                   200                  205                 210
93 ctg tcc caa cga ttt gct cag cca ggg gct cct ttt ggc cct tct cct        850
94 Leu Ser Gln Arg Phe Ala Gln Pro Gly Ala Pro Phe Gly Pro Ser Pro
95               215                   220                  225
97 ctc cag aga cct ggt cag ggg ctc ccc agc ctg ccg cct aac aca agt        898
98 Leu Gln Arg Pro Gly Gln Gly Leu Pro Ser Leu Pro Pro Asn Thr Ser
99          230                   235                  240
101 ccc ttt cct ggt ccg gac cct ggc ttt cct ggc cct ggt ggt gag gat       946
102 Pro Phe Pro Gly Pro Asp Pro Gly Phe Pro Gly Pro Gly Gly Glu Asp
103           245                   250                  255
105 ggg ggg aag ccc ttg aat cca cct gct tct act gct ttt ccc cag gag       994
106 Gly Gly Lys Pro Leu Asn Pro Pro Ala Ser Thr Ala Phe Pro Gln Glu
107      260                   265                  270
109 ccc cac tca ggc tcc ccg gct gct gct gtt aat ggg aac cag ccc agt       1042
110 Pro His Ser Gly Ser Pro Ala Ala Ala Val Asn Gly Asn Gln Pro Ser
111 275                   280                   285                290
114 ttc ccc ccg aac agc agt ggg cgg ggt ggg ggc act cca gat gcc aac       1090
115 Phe Pro Pro Asn Ser Ser Gly Arg Gly Gly Gly Thr Pro Asp Ala Asn
116           295                   300                  305
118 agc ttg gca ccc cct ggc aag gca ggt ggg ggc tcc ggg ccc cag cct       1138
119 Ser Leu Ala Pro Pro Gly Lys Ala Gly Gly Gly Ser Gly Pro Gln Pro
120           310                   315                  320
122 ccc cca ggc ttg gtg tac cca tgt ggt gcc tgt cgg agt gag gtg aac       1186
123 Pro Pro Gly Leu Val Tyr Pro Cys Gly Ala Cys Arg Ser Glu Val Asn
124           325                   330                  335
126 gat gac cag gat gcc att ctg tgt gag gcc tcc tgc cag aaa tgg ttc       1234
127 Asp Asp Gln Asp Ala Ile Leu Cys Glu Ala Ser Cys Gln Lys Trp Phe
128      340                   345                  350
```

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF4\11012005\J553661.raw

```
130 cac cgt gag tgc aca ggc atg act gag agc gcc tat ggg ctg ctg acc   1282
131 His Arg Glu Cys Thr Gly Met Thr Glu Ser Ala Tyr Gly Leu Leu Thr
132 355             360             365             370
134 act gaa gct tct gcc gtc tgg gcc tgc gat ctc tgc ctc aag acc aag   1330
135 Thr Glu Ala Ser Ala Val Trp Ala Cys Asp Leu Cys Leu Lys Thr Lys
136             375             380             385
138 gag atc cag tct gtc tac atc cgt gag ggc atg ggg cag ctg gtg gct   1378
139 Glu Ile Gln Ser Val Tyr Ile Arg Glu Gly Met Gly Gln Leu Val Ala
140             390             395             400
142 gct aac gat ggg tga cgctggtgaa gtggcccagg gaagtgcaca tgtctctccc   1433
143 Ala Asn Asp Gly
144             405
146 tgctcttcca gggtgatttt tttgatgttt ggctcttggt ccttgtttcc actggctttc   1493
147 catccccatg gggcagaaac agtggctcct gggagcagaa aaggaattga ggtgggcagg   1553
148 cagaagagcc tggattgctc actgttttgg gaaacttaca tgttgagatc tacagagatc   1613
149 caggaaacca aagccctgct gagcagagcc attttgtggc tatttctgga ggcccaggag   1673
150 tgtggctgca agagaaaagg ggctggagga agatccggag ggcaggggtg ttccctctgc   1733
151 tgatgatgga tgcccctaac acctgtgcct aacaccccta ctgaacccca cagctccagc   1793
152 cttagttttt ggagtcaagt gttaaaggtt ctggccagag gaattggggg tcttgccatc   1853
153 cctgcaatag cccttttatg ggctctggga dacagctttta gggaataaat ggggattttc   1913
154 cccttttct acccactcct ttgcttcctc caagacttac ccaactcctt ccccctcaga   1973
155 gaaccaaata gcctgaggaa gcaggagagt tcctggttat ggcagtttct tggtgatttg   2033
156 gggcttcaag acagtaggtg agagatgctg tcaggacgta tcttcttcat accaaagtca   2093
157 ctggtccttt ctcagcctct ctcgtgcttt tctcctaatg accatatttt tgccaaaaat   2153
158 tgggatatgt tatctgacag accagaatat ttgaagtttg ggctgtcctg aaagtctgga   2213
159 ctttggtggt accctcctcc cccagcccat ctgttgcaca ttatactccg tgtgttcttc   2273
160 aactttcggc gcccttattc ccctgccttc ctggcttgat tgaaggaaag cttgaaaagg   2333
161 cgcagagccc tatacctcat ttcctccatg ataaaaggat ccaagtgagg ccctgtcaca   2393
162 gcctgtgggt aggggatgcg gcgggatcct cattgccatg gtactcaaag gtagaagagc   2453
163 ctggagtttg ttgcttctct ttgctattct ttcatatcct cttgggcctg gtgattaatt   2513
164 agcaattctc attcctctca gccaaaggcc tgcactgggc tttatttgtc ttttttttatt   2573
165 ttttaagcac tgcctgccag agatgggcct ggggcctgat gaggacctta gcgctgctcg   2633
166 ttctcctttt ctgttcatgc acacattcct ccatggggtg gggaaggcag gcatggggtg   2693
167 tggccctcgg agaagttagg agtcccccag ctcaagatac agtggcaaag acctagtggt   2753
168 cccctacccc cacttctctc agttcctggc atgaggagag aagaccctgc tctggtggag   2813
169 ctgacaacct ttgaggctgg gaggagagca gcctctgggc atcgttccca gtgtccctca   2873
170 cactaaaacg gcgtagatgg caacccccca ccccaccccc gctgctcaac tcttgtgttt   2933
171 gttgttctgt ttgccccatt tatctgttgc tgttttttgtg ttgtcttccc ctgctccgca   2993
172 ttttgtaaaa tggcccctgg gggagtgttt ttgctggatc tgctccctct cgctctctca   3053
173 ctccactact ttttggacaa agtgatggca gaatgcggtg gtggtggggg tcttttgtac   3113
174 tgttggatta ataaatgat tttaaaatcc caaaaaaaaa aaaaaaaaaa aaaaaaaaaa   3173
175 aaaaaaaaaa aaaaaa                                                   3190
```

RAW SEQUENCE LISTING   DATE: 11/01/2005
PATENT APPLICATION: US/10/553,661   TIME: 11:57:18

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF4\11012005\J553661.raw

```
188 Met Ala Ala Ser Ala Pro Pro Pro Pro Asp Lys Leu Glu Gly Gly Gly
189 1             5                 10              15
191 Gly Pro Ala Pro Pro Pro Ala Pro Pro Ser Thr Gly Arg Lys Gln Gly
192             20              25              30
194 Lys Ala Gly Leu Gln Met Lys Ser Pro Glu Lys Lys Arg Arg Lys Ser
195         35          .   40              45
197 Asn Thr Gln Gly Pro Ala Tyr Ser His Leu Thr Glu Phe Ala Pro Pro
198     50              55              60
200 Pro Thr Pro Met Val Asp His Leu Val Ala Ser Asn Pro Phe Glu Asp
201 65              70    .         75              80
203 Asp Phe Gly Ala Pro Lys Val Gly Val Ala Ala Pro Pro Phe Leu Gly
204             85              90              95
206 Ser Pro Val Pro Phe Gly Gly Phe Arg Val Gln Gly Gly Met Ala Gly
207             100             105             110
209 Gln Val Pro Pro Gly Tyr Ser Thr Gly Gly Gly Gly Gly Pro Gln Pro
210         115             120             125
212 Leu Arg Arg Gln Pro Pro Pro Phe Pro Pro Asn Pro Met Gly Pro Ala
213     130             135             140       .
215 Phe Asn Met Pro Pro Gln Gly Pro Gly Tyr Pro Pro Pro Gly Asn Met
216 145             150             155             160
218 Asn Phe Pro Ser Gln Pro Phe Asn Gln Pro Leu Gly Gln Asn Phe Ser
219             165             170             175
221 Pro Pro Ser Gly Gln Met Met Pro Gly Pro Val Gly Gly Phe Gly Pro
222             180             185             190
224 Met Ile Ser Pro Thr Met Gly Gln Pro Pro Arg Ala Glu Leu Gly Pro
225         195             200             205
228 Pro Ser Leu Ser Gln Arg Phe Ala Gln Pro Gly Ala Pro Phe Gly Pro
229     210             215             220       .
231 Ser Pro Leu Gln Arg Pro Gly Gln Gly Leu Pro Ser Leu Pro Pro Asn
232 225             230             235             240
234 Thr Ser Pro Phe Pro Gly Pro Asp Pro Gly Phe Pro Gly Pro Gly Gly
235             245             250             255
237 Glu Asp Gly Gly Lys Pro Leu Asn Pro Pro Ala Ser Thr Ala Phe Pro
238             260             265             270
240 Gln Glu Pro His Ser Gly Ser Pro Ala Ala Ala Val Asn Gly Asn Gln
241         275             280             285
243 Pro Ser Phe Pro Pro Asn Ser Ser Gly Arg Gly Gly Gly Thr Pro Asp
244     290             295             300
246 Ala Asn Ser Leu Ala Pro Pro Gly Lys Ala Gly Gly Gly Ser Gly Pro
247 305             310             315             320
249 Gln Pro Pro Pro Gly Leu Val Tyr Pro Cys Gly Ala Cys Arg Ser Glu
250             325             330             335
252 Val Asn Asp Asp Gln Asp Ala Ile Leu Cys Glu Ala Ser Cys Gln Lys
253     .       340             345             350
255 Trp Phe His Arg Glu Cys Thr Gly Met Thr Glu Ser Ala Tyr Gly Leu
256         355             360             365
258 Leu Thr Thr Glu Ala Ser Ala Val Trp Ala Cys Asp Leu Cys Leu Lys
259     370             375             380
261 Thr Lys Glu Ile Gln Ser Val Tyr Ile Arg Glu Gly Met Gly Gln Leu
```

```
262 385                   390               395                   400
264 Val Ala Ala Asn Asp Gly
265                   405
268 <210> SEQ ID NO: 3
269 <211> LENGTH: 1260
270 <212> TYPE: DNA
271 <213> ORGANISM: homosapiens
273 <220> FEATURE:
274 <221> NAME/KEY: CDS
275 <222> LOCATION: (1)..(1260)
277 <220> FEATURE:
278 <223> OTHER INFORMATION: hPygo-1
280 <400> SEQUENCE: 3
281 atg ccc gcc gag aac tct cca gct ccc gct tac aaa gtt tcc tcg cat          48
282 Met Pro Ala Glu Asn Ser Pro Ala Pro Ala Tyr Lys Val Ser Ser His
283 1                   5                   10                  15
285 ggt ggt gat agt gga ctg gat ggg tta gga gga cca ggt gta caa cta          96
286 Gly Gly Asp Ser Gly Leu Asp Gly Leu Gly Gly Pro Gly Val Gln Leu
287                   20                  25                  30
289 gga agc cca gat aag aaa aag cgc aag gca aat aca cag gga cct tct          144
290 Gly Ser Pro Asp Lys Lys Lys Arg Lys Ala Asn Thr Gln Gly Pro Ser
291             35                  40                  45
293 ttc cct cca ttg tct gag tat gct cca cca ccg aat cca aac tct gac          192
294 Phe Pro Pro Leu Ser Glu Tyr Ala Pro Pro Pro Asn Pro Asn Ser Asp
295     50                  55                  60
297 cat cta gtg gct gct aat cca ttt gat gac aac tat aat act att tcc          240
298 His Leu Val Ala Ala Asn Pro Phe Asp Asp Asn Tyr Asn Thr Ile Ser
299 65                  70                  75              . 80
301 tat aaa cca cta cct tcg tca aat cca tat ctt ggc cct ggt tat cct          288
302 Tyr Lys Pro Leu Pro Ser Ser Asn Pro Tyr Leu Gly Pro Gly Tyr Pro
303                 85                  90                  95
305 ggc ttt gga ggc tat agt aca ttc aga atg cca cct cac gtt ccc cca          336
306 Gly Phe Gly Gly Tyr Ser Thr Phe Arg Met Pro Pro His Val Pro Pro
307                 100                 105 .               110
309 aga atg tct tcc cca tac tgt ggt cct tac tca ctc agg aac cag cca          384
310 Arg Met Ser Ser Pro Tyr Cys Gly Pro Tyr Ser Leu Arg Asn Gln Pro
311             115                 120                 125
313 cac cca ttt cct cag aat cct ctg ggc atg ggt ttt aat cga cct cat          432
314 His Pro Phe Pro Gln Asn Pro Leu Gly Met Gly Phe Asn Arg Pro His
315         130                 135                 140
317 gct ttt aac ttt ggg cca cat gat aat tca agt ttc ggt aat cca tct          480
318 Ala Phe Asn Phe Gly Pro His Asp Asn Ser Ser Phe Gly Asn Pro Ser
319 145                 150                 155                 160
321 tat aat aat gca cta agt cag aat gtc aac atg cct aat caa cat ttt          528
322 Tyr Asn Asn Ala Leu Ser Gln Asn Val Asn Met Pro Asn Gln His Phe
323                 165                 170                 175
325 aga caa aat cct gct gaa aat ttc agt caa att cct cca cag aat gct          576
326 Arg Gln Asn Pro Ala Glu Asn Phe Ser Gln Ile Pro Pro Gln Asn Ala
327             180                 185                 190
```

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 11/01/2005
PATENT APPLICATION: US/10/553,661   TIME: 11:57:19

    Input Set : **A:\PTO.AMC.txt**
    Output Set: **N:\CRF4\11012005\J553661.raw**

Invalid <213> Response:
Use of "Artificial" only as "<213> Organism" response is incomplete,
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28

VERIFICATION SUMMARY
PATENT APPLICATION: US/10/553,661

DATE: 11/01/2005
TIME: 11:57:19

Input Set : **A:\PTO.AMC.txt**
Output Set: **N:\CRF4\11012005\J553661.raw**

L:9 M:270 C: Current Application Number differs, Replaced Current Application No
L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date